



# ***The People's Transportation Plan*** **Financial Capacity Analysis**

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# Overview



- I. Program Implementation Components**
- II. Financial Planning Methodology**
- III. Major Assumptions**
- IV. Results**

# **I. Program Implementation Components**

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# The People's Transportation Plan

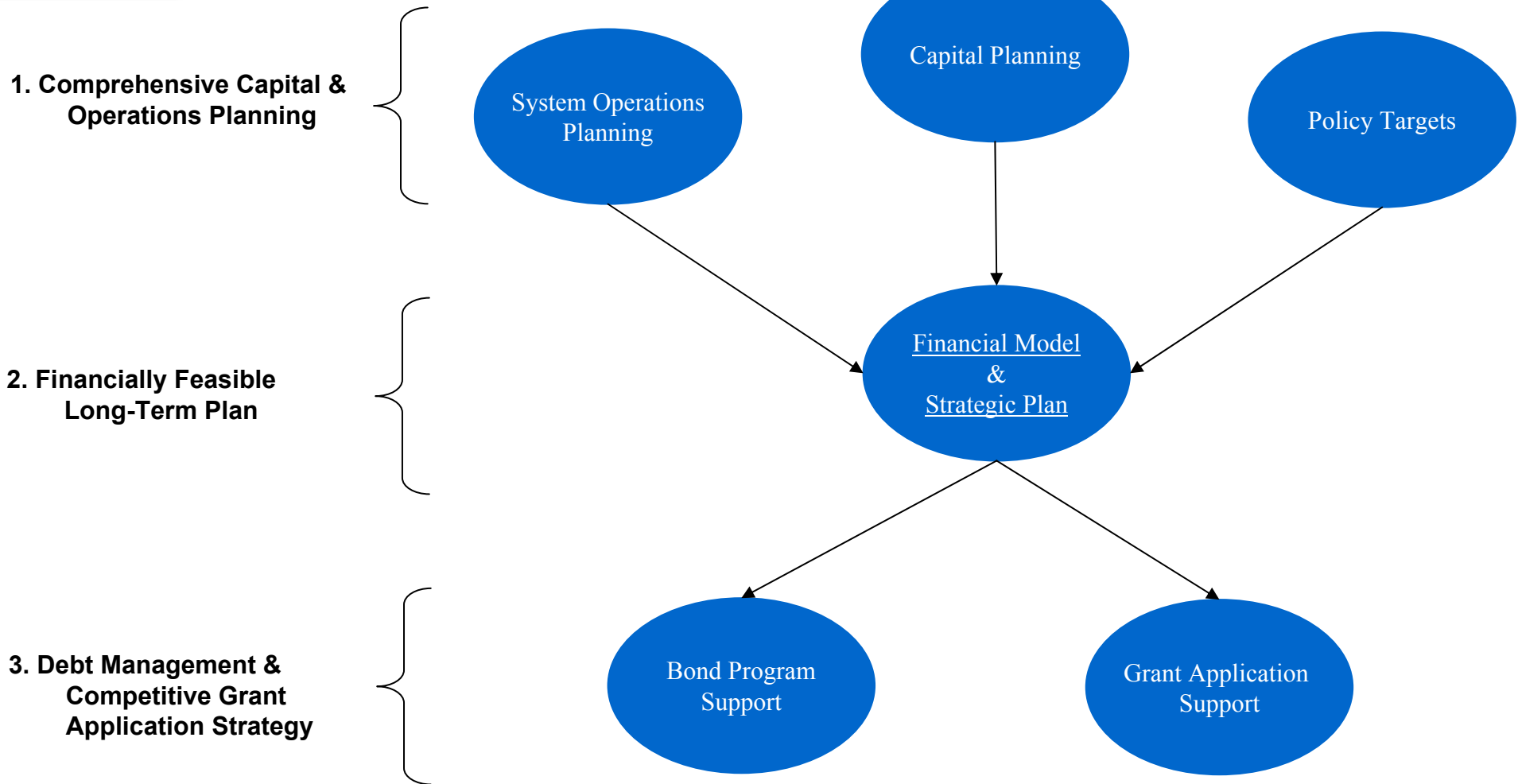


## Program Components: 2003 - 2023

- Increase annual bus service from 27 to 43.5 million miles (63%) by 2007
- Increase bus fleet from 700 to 1190 buses by 2007
- Increase existing rail service headways
- Implement \$3.1 billion (2003\$) rail capital program by 2023
  - North Corridor
  - Earlington Heights to MIC
  - FIU to MIC
  - MIC to Government Center
  - Downtown to Miami Beach (light rail)
  - Kendall Corridor (dedicated bus lanes)
- Ongoing rail rehabilitation & replacement costs total \$990 million
- Build \$470 million in Public Works projects

## **II. Financial Planning Methodology**

# Methodology – Comprehensive Planning Approach



# Methodology – Bus Service Implementation



- **Planning data and bus route selection drives bus O&M and capital costs**
- **Bus O&M costs are driven by primary service factors**
  - **Vehicle mile**
  - **Vehicle hour**
  - **Peak vehicle day**
- **Bus capital needs are derived from service requirements and route selection**
- **Bus replacement needs are based on existing fleet and new buses through 2007**

# Methodology – Rail Service Implementation



- **Engineering studies are relied upon when available**
  - **Detailed studies only available for North Corridor & Earlington Heights Corridor**
- **Internal engineering estimates used for capital cost estimates in lieu of engineering studies**
- **Rail O&M cost estimates are based upon FY 2004 budget estimates**



### **III. Major Assumptions**

# Assumptions – Bus Capital Requirements



- Existing bus fleet FY 2003 = 875
- Additional requirements through 2007
  - Large buses: 81
  - Small buses: 235
- Ongoing bus replacement requirements are based on existing fleet & average bus life of 12 years

## New Bus Acquisition Schedule: FY 2004 – 2007

<u>New Bus Service – Bus Purchase Requirements</u>				
<u>FY</u>	<u>Additional Bus Service Requirements</u>		<u>“Net” Purchasing Requirements</u>	
	<u>Large Bus - Qnty</u>	<u>Small Bus - Qnty</u>	<u>Large Bus - Qnty</u>	<u>Small Bus - Qnty</u>
2004	29	36	0	0
2005	38	66	15	42
2006	55	60	55	60
2007	11	133	11	133
<b>Total</b>	<b>133</b>	<b>295</b>	<b>81</b>	<b>235</b>

# Assumptions – Bus O&M Costs

- Primary factors driving bus O&M costs
  - Vehicle revenue hours
  - Vehicle revenue miles
  - Peak vehicle days

## Bus Service Unit Costs

Incremental Bus Costs – FY 2004 Budget Allocation			
	<u>Vehicle Hours</u>	<u>Vehicle Miles</u>	<u>Vehicle Days</u>
<b>Base Service Levels:</b>	2,520,822	32,117,032	209,406
<b><u>Cost Categories</u></b>			
Labor	\$92,389,500	\$24,581,828	\$5,034,832
Services	\$0	\$5,416,795	\$3,301,061
Materials	\$0	\$8,204,400	\$362,926
Utilities	\$0	\$9,523,932	\$0
Insurance	\$0	\$2,249,100	\$207,360
Taxes	\$0	\$805,300	\$0
<u>Other</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>TOTAL</b>	<b>\$92,389,500</b>	<b>\$50,781,355</b>	<b>\$8,906,179</b>
<b>Results: Incremental Cost Factors</b>			
Cost Per Veh. Hour	\$36.65		
Cost Per Veh. Mile	\$1.58		
Cost Per Peak Veh. Day	\$42.53		

# Assumptions – Bus O&M Costs



## Bus Service Implementation Schedule: FY 2004 – 2007

Base Vehicle Miles FY 2003 = 30,926,515			
<u>Fiscal Year</u>	<u>Bus Revenue Miles</u>	<u>Bus Revenue Hours</u>	<u>Peak Vehicle Requirement</u>
2004	2,163,180	174,104	54
2005	3,332,971	261,710	87
2006	3,572,806	262,974	96
2007	3,455,491	263,151	110
Total Incremental Increase	12,524,448	961,939	347
Cumulative Total Miles	43,450,963		

# Assumptions – Bus O&M Costs



- O&M cost projections account for near-term labor contract increases through 2006
  - Increase 3.6% annually beginning 2007

## Bus Service Implementation Costs: FY 2004 – 2008

Bus Service Increase Costs					
	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
2004	\$ 27,374,000				
2005		43,357,329.01			
2006			63,670,517.61		
2007				84,352,833.39	
2008					96,659,734.13

# Assumptions – Rail Capital Costs

- Total rail program contemplated by MDT is \$5.27 billion (2003\$)
- This large capital program faces the following constraints:
  - Limited federal funding participation
  - Local funding capacity
  - O&M cost sustainability
- Rail rehabilitation costs = \$990 million
  - Includes \$100 million capital reserve fund

<u>Rail Program Capital Costs</u>		
<u>Project</u>	<u>Capital Cost (2003\$)</u>	<u>Construction Start Date</u>
North Corridor	\$ 730,429,187	2004
FIU to MIC	\$ 1,082,675,107	2004
MIC to Government Center	\$ 594,415,531	2008
LR Dtown to Miami Beach	\$ 259,140,481	2014
EH/MIA connector	\$ 221,387,206	2004
Kendall Corridor (Decicated Bus Lane)	\$ 239,511,213	2007
Northeast Corridor	\$ 843,415,500	2028
MIC/Douglas Rd.	\$ 296,998,955	2028
Metrorail to Florida City	\$ 1,003,611,400	2028
<b>Total Cost (2003\$)</b>	<b>\$ 5,271,584,580</b>	

# Assumptions – Rail O&M Costs



- Rail O&M costs for the North Corridor and the Earlington Heights Corridor are based upon recent engineering studies
- Rail O&M costs for the remaining corridors are based on estimated cost per track mile for MDT's existing system

<u>Incremental Rail Cost – Cost Per Track Mile</u>	
Fully Allocated Budget FY 2004 – Rail	\$67,624,468
Variable Component - Percent	85%
Variable Component of Budget FY 2004 – Rail	\$57,480,798
Rail Track Miles - FY 2004	22.4
Variable Cost Per New Track Mile	<b>\$2,566,107</b>

# Assumptions – Rail O&M Costs



- Rail O&M cost projections account for near-term labor negotiated increases and then increase at 3.6% annually

## Annual Rail O&M Costs

<u>Rail Corridors – Annual O&amp;M Costs</u>		
<u>Project</u>	<u>Start of Operations</u>	<u>Annual O&amp;M Cost (2004\$)</u>
North Corridor	2013	\$ 12,504,000
FIU to MIC	2013	\$ 23,095,000
MIC to Government Center	2018	\$ 17,193,000
Light Rail Downtown to Miami Beach	2023	\$ 6,545,000
EH/MIA connector	2013	\$ 1,878,000
Kendall Corridor (Dedicated Bus Lanes)	2018	Accounted for under bus service



# Assumptions – Capital Funding Sources



## Rail Capital Funding Sources

### **Federal Participation = 50%**

- Not to exceed \$100 in any single year
  - Any lag in federal funds will be covered with commercial paper
- 
- **State & Other Participation = 25%**
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- **Local Funding Participation = 25%**
    - Local funds are generated through sales tax revenue bonds

# Assumptions – Capital Funding Sources



## Bus Capital Funding Sources

### **Federal Section 5309 Bus Grant Funds**

- \$3 million annually through 2008
  - \$5 million annually beginning 2009 & thereafter
- 
- **Federal Section 5307 Urbanized Area Grant Funds**
    - \$2 million annually applied to bus purchase
- 
- **State Bus Capital Grant Funds**
    - 1-year receipt of \$6.6 million in 2004
- 
- **Remaining annual costs are lease financed secured by 5307 funds & a subordinate lien on gross sales tax revenues**

# Assumptions – Revenues



## Fare Revenues

- **Primary factors driving bus & rail revenues**
  - Fare structure
  - Passenger boardings
- **Fare increases are required to offset slow passenger boardings growth projections**
  - Annual boardings growth = 1.17% vs. O&M cost growth of 3.6%
- **Periodic fare Increases are necessary in order to maintain a structural balance with O&M costs**
  - MDT has not increased fares since 1991
  - Bus farebox recovery ratio: decreased from 36% to 26% over the last 4 years
  - Rail farebox recovery ratio: decreased from 28% to 18% over the last 4 years

# Assumptions – Revenues



## Fare Revenues

- Projected periodic fare increases every 5 years beginning 2007

<u>MDT Passenger Fare Structure – Existing Fares &amp; Periodic Increases</u>			
	<u>Current Fares</u>	<u>Periodic Fare Increases</u>	
<u>Fare Category</u>	<u>2004</u>	<u>2007</u>	<u>2012-22 (every 5 years)</u>
<b>Cash Fare</b>			
Bus	\$ 1.25	\$ 0.25	\$ 0.50
Rail	\$ 1.25	\$ 0.25	\$ 0.50
Transfers to Bus	\$ 0.25	\$ 0.25	\$ 0.50
Transfers to Rail	\$ 0.25	\$ 0.25	\$ 0.50
<b>Special Transportation Services Fares</b>	\$ 2.50	\$ 0.50	\$ 1.00
<b>Tokens</b>			
Bus	\$ 1.00	\$ 0.20	\$ 0.40
Rail	\$ 1.00	\$ 0.20	\$ 0.40
<b>Prepaid Passes</b>			
Monthly Transit Pass	\$ 60.00	\$ 5.00	\$ 10.00
Monthly Discount Pass	\$ 30.00	\$ 2.50	\$ 5.00

# Assumptions – Revenues



## Other System Revenues

- The following system generated revenues (in addition to fares) are incorporated into the long range forecast

<u>Additional Operating Revenues – Assumed Growth Rates</u>	
Parking Fees:	Constant increase of 3.06% <u>plus</u> \$63,000 incremental increase with every new rail parking facility
TD Pass Revenue	5% increase every 5 years
TD Token Revenue	5% increase every 5 years
Medicaid Pass Revenue	5% increase every 5 years
Joint Development/ Permits/Leases	No Growth to 2010. \$10 MM in 2010 through 2023 <u>plus</u> \$100,000 per each new rail facility
Advertising/Others	No Growth
Bus feeder	No Growth

# Assumptions – Revenues



## Directly Generated Revenues – 2004 Estimates

<u>Directly Generated Revenues</u>	
<u>Directly Generated Revenues</u>	<u>2004 Estimate</u>
Existing Bus Service Farebox	\$39,656,000
Expanded Bus Service Farebox	\$7,200,000
Existing Rail Service Faregate	\$8,418,000
Expanded Rail Service Faregate	\$800,000
Pass Revenue	\$12,418,000
Rail Parking	\$1,130,000
STS Revenues	\$3,975,000
TD Pass Revenue	\$1,400,000
TD Token Revenue	\$159,000
Medicaid Pass Revenue	\$1,786,000
JD/ Permits/Leases	\$2,400,000
Advertising/Others	\$4,000,000
<u>Bus feeder</u>	\$667,000

# Assumptions – Revenues



## Subsidy Revenues

**MDT will continue to rely on substantial federal, state & local subsidy funding contributions that keep pace with increasing service costs**

<u>Subsidy Funding Sources</u>		
<u>Funding Source</u>	<u>2004 Estimate</u>	<u>Growth Rate</u>
Federal Section 5307 funds	\$40,000,000	4.0%
Federal Section 5309 Rail Mod funds	\$12,000,000	3.0% - 4.0%
State Transp. Disadvantaged funds	\$6,000,000	1.6%
State Block Grant funds	\$16,300,000	1.6%
General Fund subsidy	\$118,600,000	3.5%
Local Option Gas Tax (LOGT)	\$14,800,000	1.5%
Sales tax revenue	\$163,000,000	5.9%

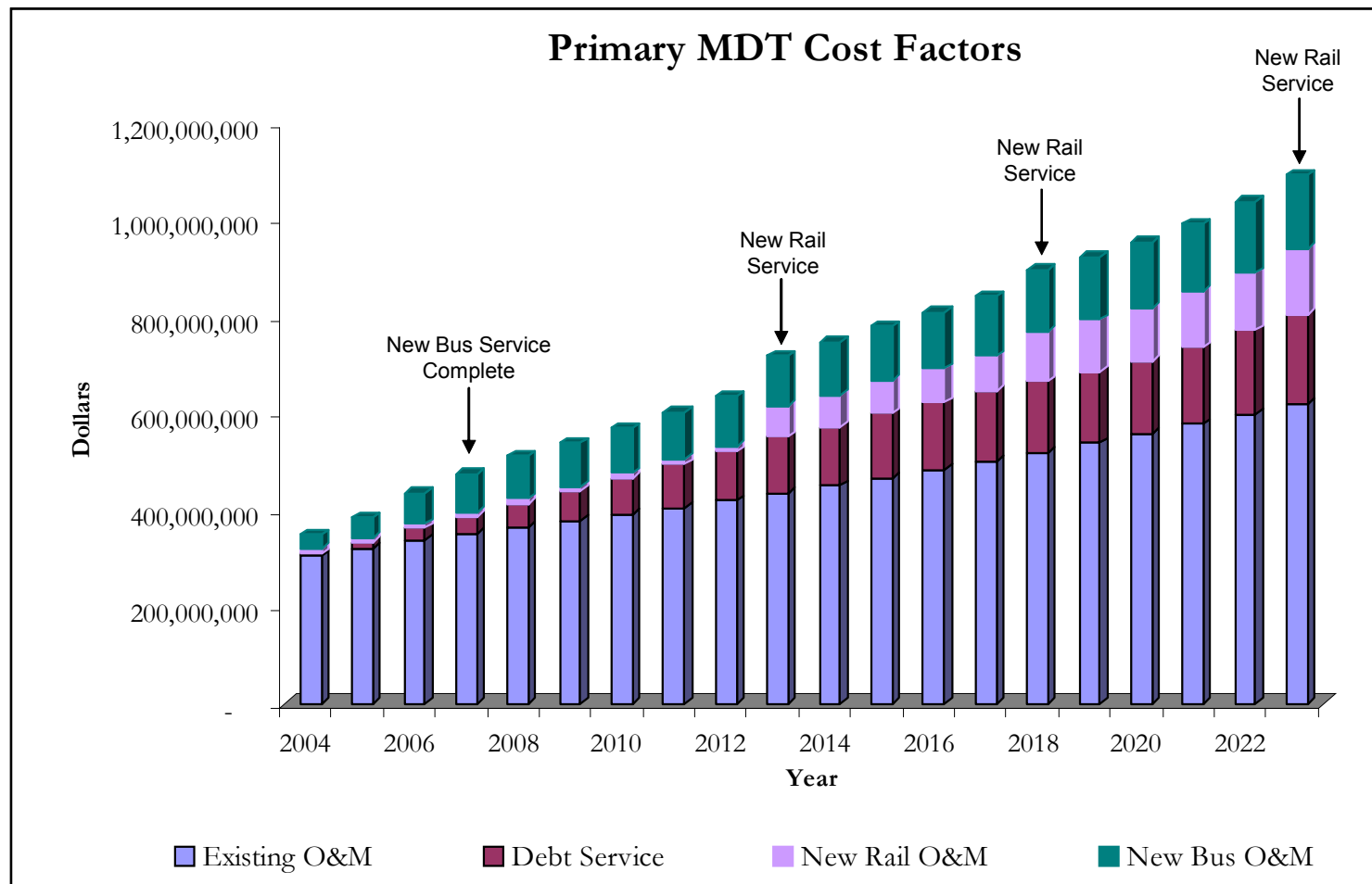
## IV. Results



# Results – Expenses



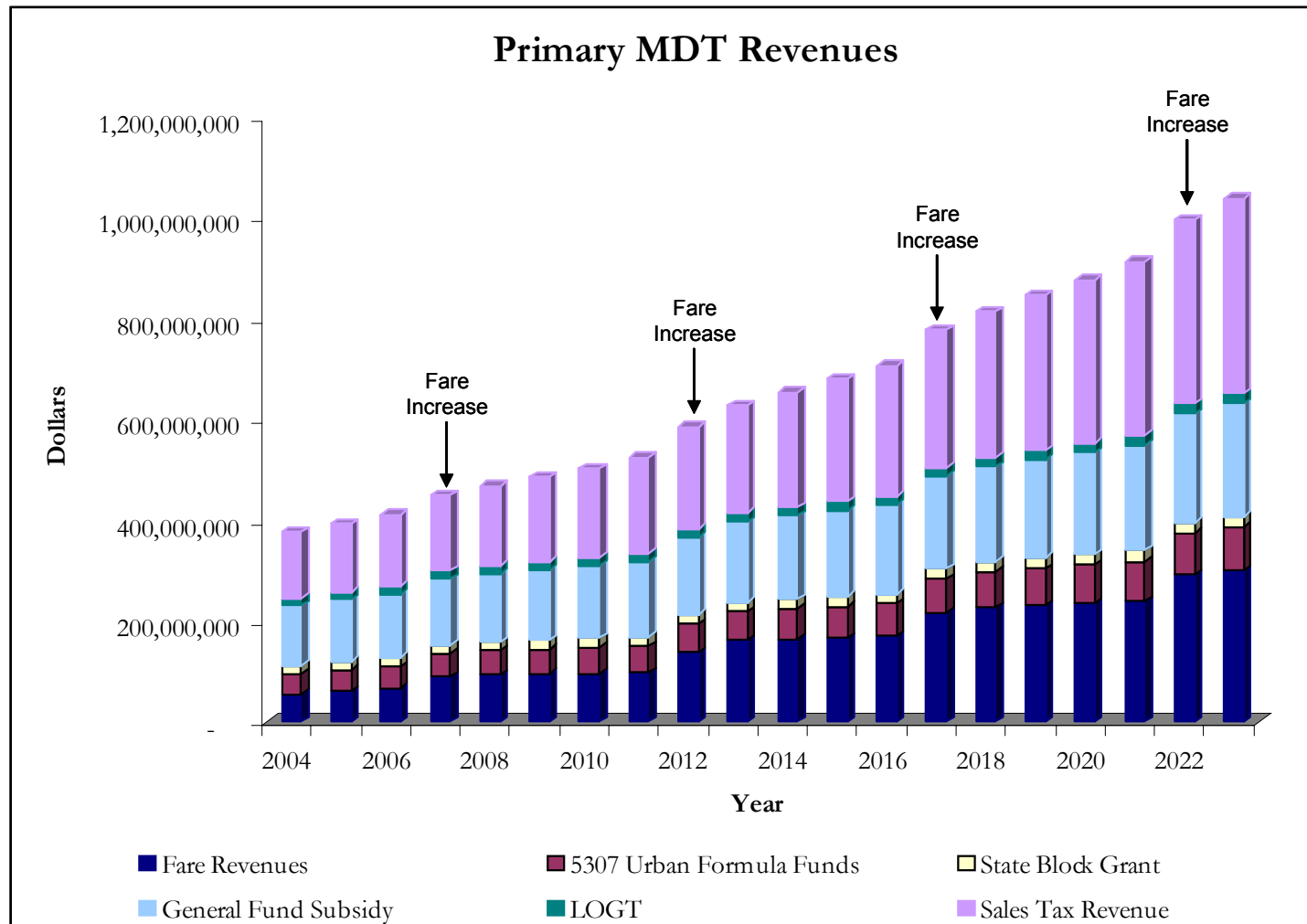
- Annual expenses increase rapidly with new service and rising debt service requirements.



# Results – Revenues



- Structural balance between pre-PTP revenues & expenses
- Strong projected sales tax growth sufficient to meet debt service
- Periodic fare increases necessary to meet new service costs



# Results – Annual Ending Balance

- “Narrow” long term financial feasibility subject to revenue & expenditure risk
- Rail capital program needs to be re-evaluated in light of federal participation and operating impact on system

